

Who We Are, What We Do

AACC/PA 00-038 AACC/PA 00-041

- Resources
- Collaboration Opportunities

Col. "Dutch" Dutchyshyn, Director

#### **MISSION:**

DEVELOP, INTEGRATE, AND TRANSITION SCIENCE AND TECHNOLOGY FOR AIR-LAUNCHED MUNITIONS FOR DEFEATING GROUND FIXED, MOBILE/RELOCATABLE, AIR, AND SPACE TARGETS TO ASSURE THE PRE-EMINENCE OF U.S. AIR AND SPACE FORCES.

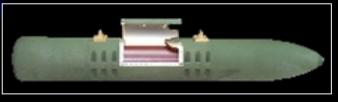














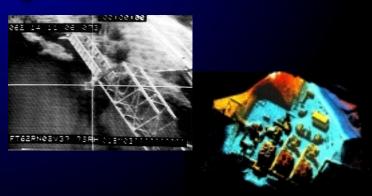








## **MN Focus Areas**



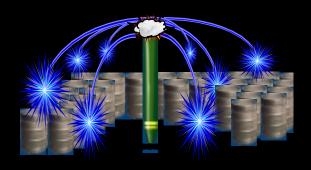
**Precision Engagement** 



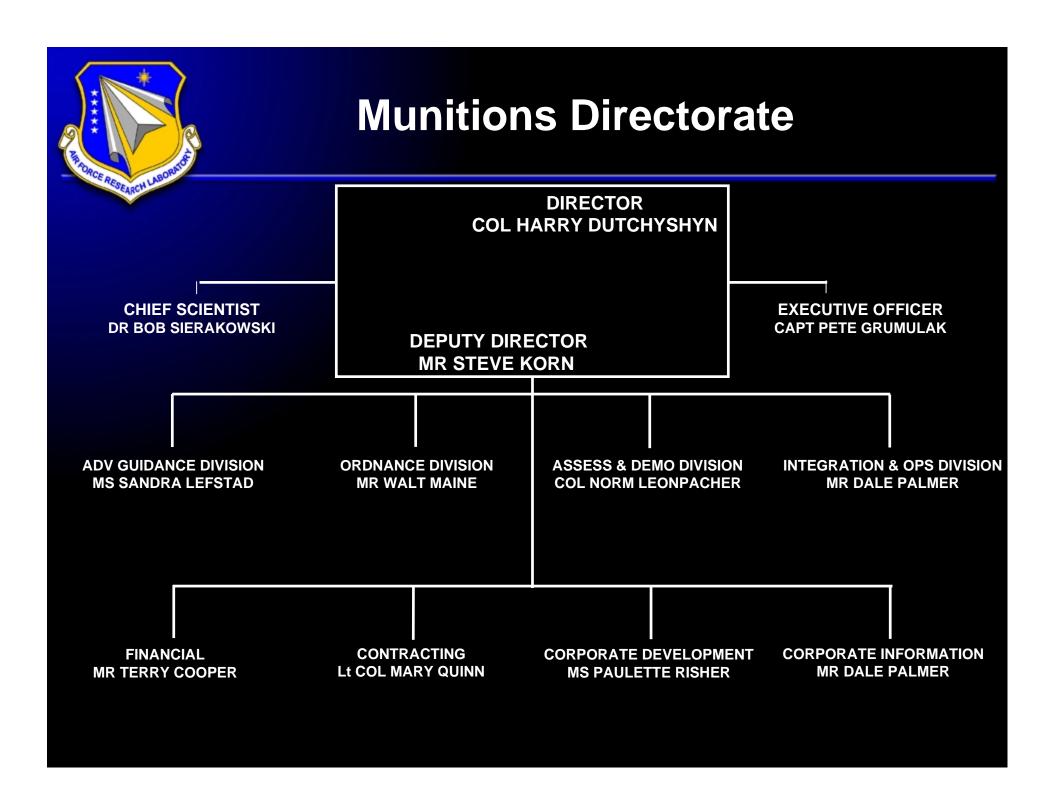
**Autonomous Munitions** 



**Focused Lethality** 



**Alternatives to Blast Frag** 

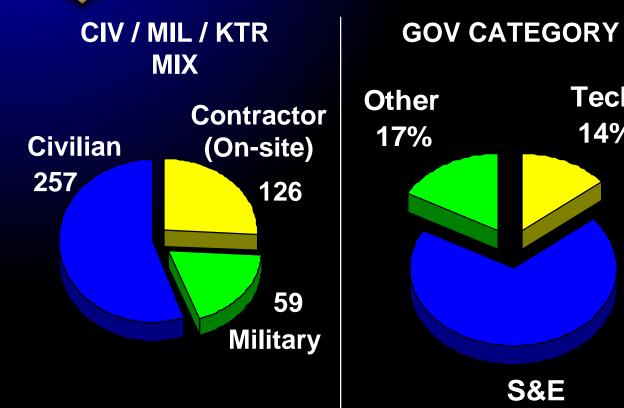




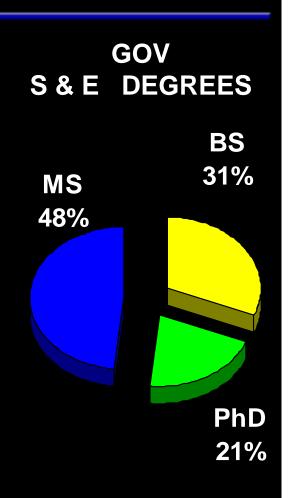
## **MN Manpower**

**Tech** 

14%







MN TOTAL (GOV'T) - 316

MN TOTAL INCLUDING **CONTRACTORS** - 442

An Integrated Workforce... Balanced between GOV & KTR Personnel

69%



## **Integrating Concepts**

### Realizing the Vision



SMALL SMART BOMB



HARD TARGET SMART MUNITION



ANTIMATERIEL MUNITION



AIR SUPERIORITY MISSILE

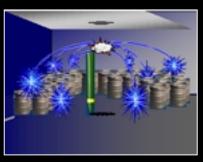
### **New Visions**



AIR EXPEDITIONARY FORCE



CLOSE AIR SUPPORT



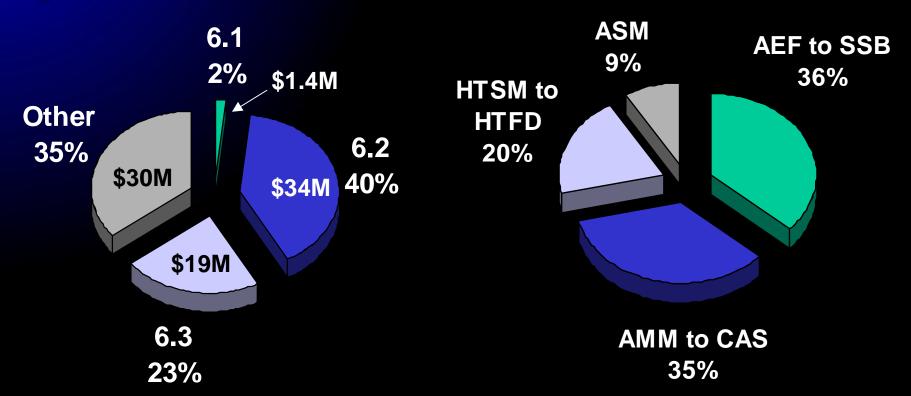
COUNTER-PROLIFERATION



HARD TARGET FUNCTIONAL DEFEAT

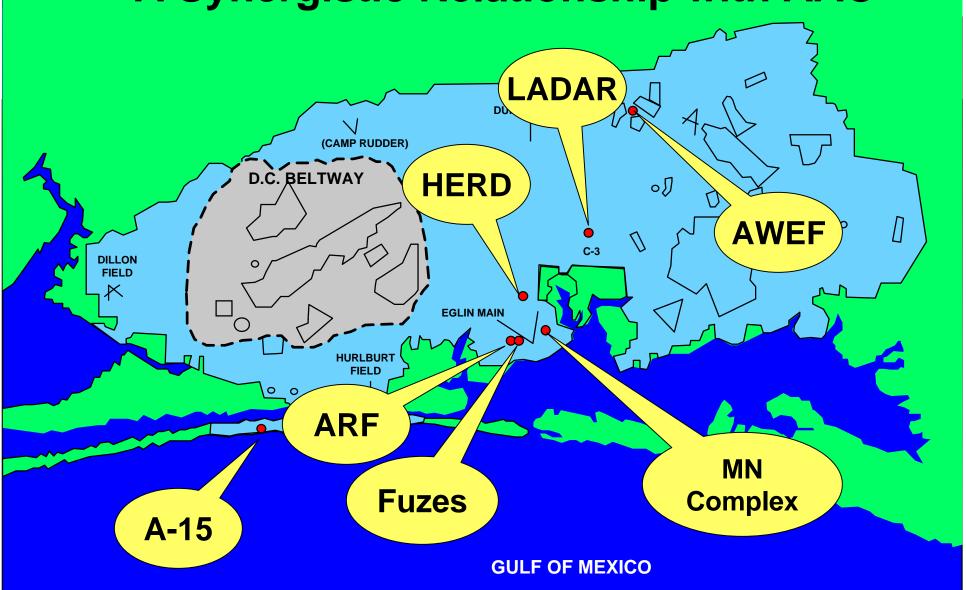


## MN FY00 Funding



## Institutional & Customer Funding ... Targeted to Warfighter Needs

# MN Facilities at Eglin AFB... A Synergistic Relationship with AAC





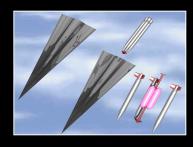
## **Technology Drivers**

- **All Weather Attack**
- Weapon Borne BDI/BDA
  - Last mile updates... in-flight retasking
  - Weapons Swarming... cooperative data links
- **Increase Stand-off** 
  - High Energy Propulsion...Speed/endurance
  - Payload / Submunition integration & dispensing
- **Weapons From / Thru Space**













## **Areas of Interest for Collaboration**

- Weapons and weapons effects modeling
- Target effects modeling
- Advanced energetics increased yield; shock sensitivity
- Explosive reclamation & environmental effects
- Advanced initiation- high speed, low voltage nanosecond control of explosive detonators

- Aeroballistics operation of a free flight ballistic range
- Guidance and control laws
- Weapon communication sensor web
- Munition image processing algorithms
- IR/RF/MMW signal processing for terminal attack
- Neutralization characteristics of bio and chemical agents
- High-strength / toughness steel and heavy metals

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# MN Focus on AF Core Competencies

### **Control the Aerospace Dimension**









**Attack with Precision** and Tailored Effects

**Be an Expeditionary Force** 



